

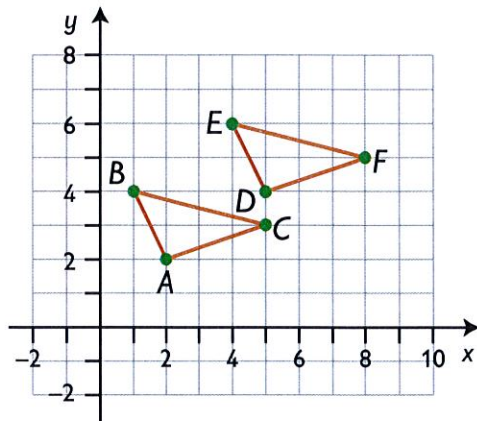
WLPCS
Geometry

Name: _____

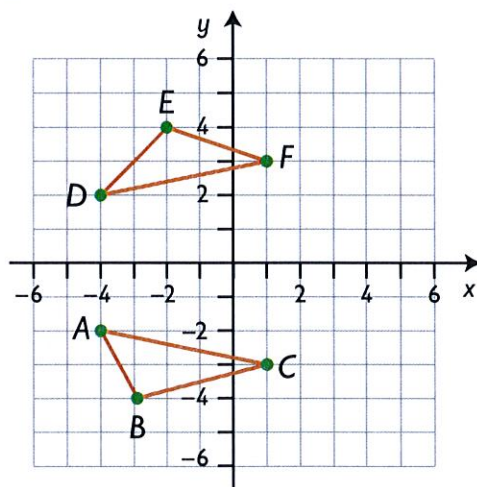
Date: _____

Per.: _____

1. Determine if these two triangles are congruent by showing a sequence of rigid motions that maps ABC to DEF .



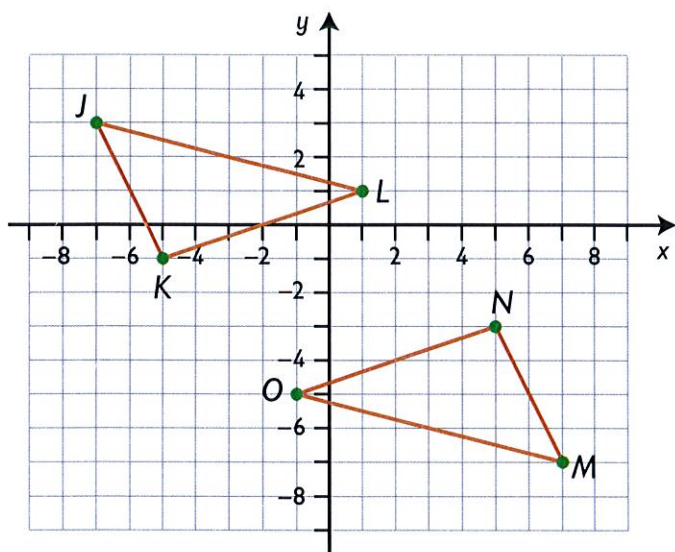
2. Determine if these two triangles are congruent. Describe your method and justify your response.



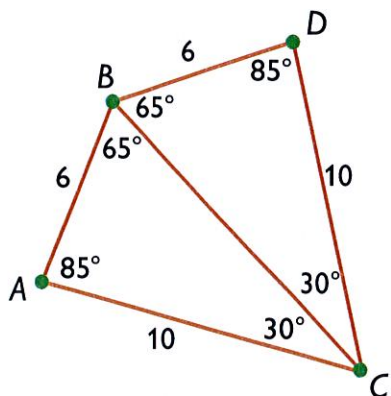
4.1 Triangle Congruence
Introduction

WLPCS
Geometry

3. Determine if triangle JKL and triangle MNO are congruent. Describe your method and justify your response.

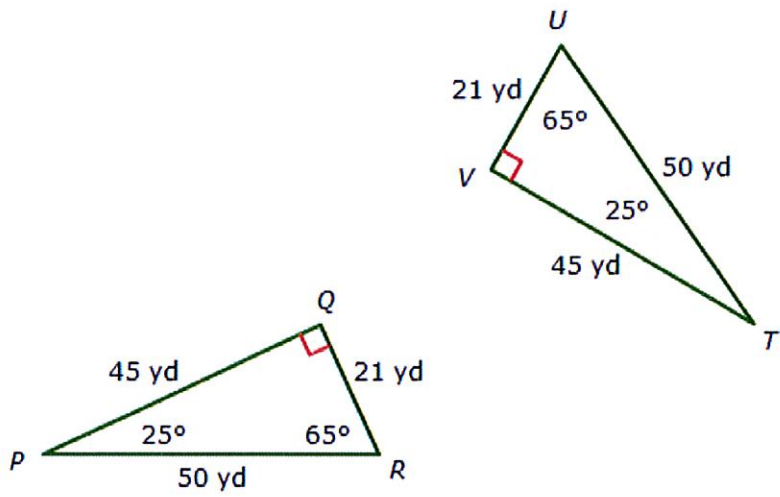


4. Show that the triangle ABC and triangle DBC are congruent. Describe your method and justify your response.



HOW CAN YOU DEFINE CONGRUENCE?

WLPCS
Geometry



Name	Explanation	Shorthand	Picture
Side Side Side			
Side Angle Side			
Angle Side Angle			

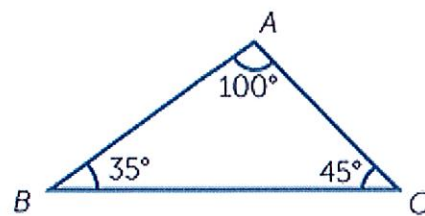
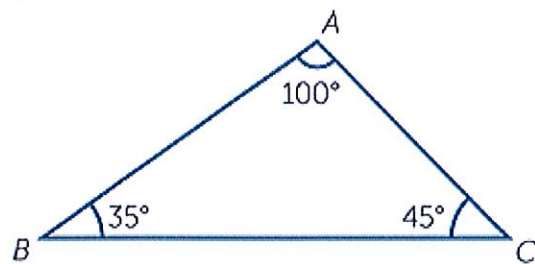
WLPCS
Geometry

Angle Angle Side			
Hypotenuse Leg			
SSA?			
AA (AAA?)?			

WLPCS
Geometry

Examples:

1.



2.

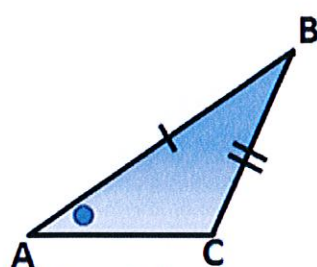


Figure 3-A

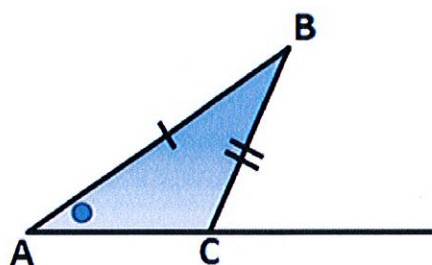


Figure 3-B

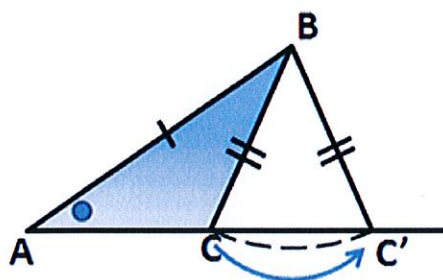


Figure 3-C

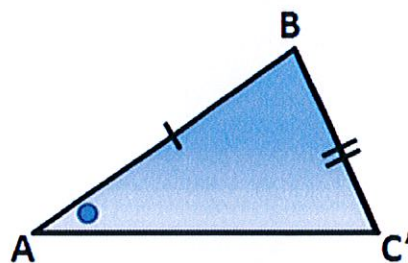
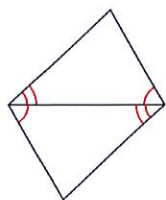


Figure 3-D

3.

For each triangle below, determine if they are congruent, and if they are state how you know.

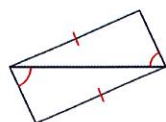
(SSS, SAS, ASA, or AAS)



1.)

Congruent? _____

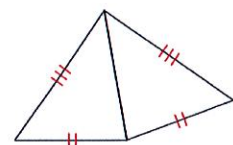
How do you know? _____



2.)

Congruent? _____

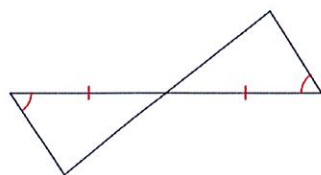
How do you know? _____



3.)

Congruent? _____

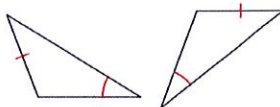
How do you know? _____



4.)

Congruent? _____

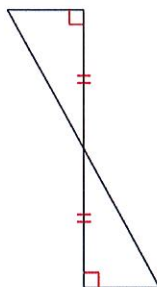
How do you know? _____



5.)

Congruent? _____

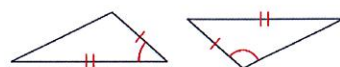
How do you know? _____



6.)

Congruent? _____

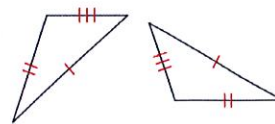
How do you know? _____



7.)

Congruent? _____

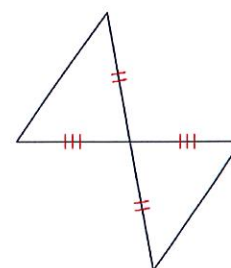
How do you know? _____



8.)

Congruent? _____

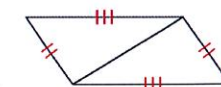
How do you know? _____



9.)

Congruent? _____

How do you know? _____



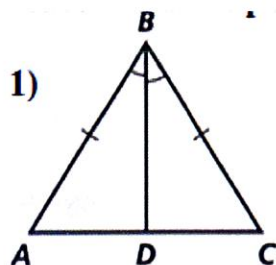
10.)

Congruent? _____

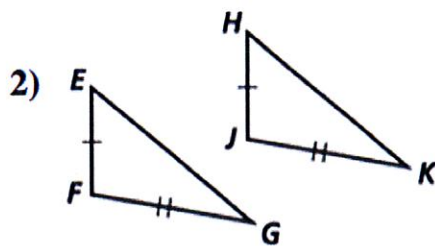
How do you know? _____

For each set of triangles below....

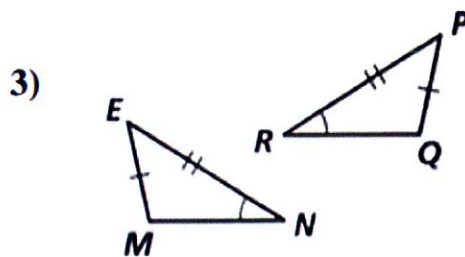
- determine if they are congruent. If there is not enough information to show they are congruent, write "unknown".
- If they are congruent, write the triangle congruency.
- Identify the theorem or that shows the triangles are congruent.. (SSS, SAS, ASA, or AAS)



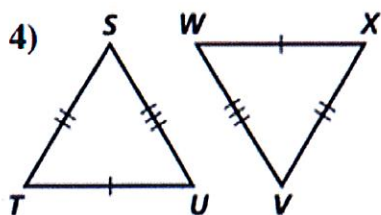
- Congruent? _____
- $\triangle ABD =$ _____
- Post.: _____



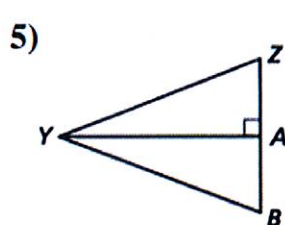
- Congruent? _____
- $\triangle EFG =$ _____
- Post.: _____



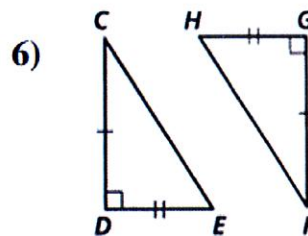
- Congruent? _____
- $\triangle ENM =$ _____
- Post.: _____



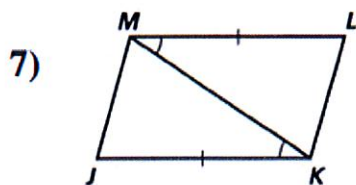
- Congruent? _____
- $\triangle TUS =$ _____
- Post.: _____



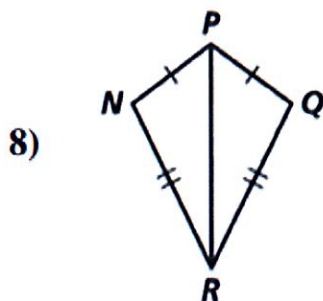
- Congruent? _____
- $\triangle ABY =$ _____
- Post.: _____



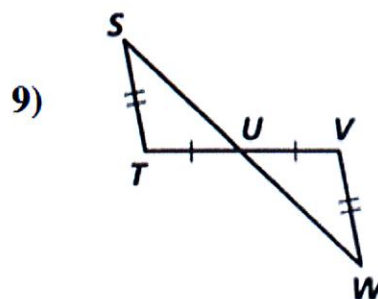
- Congruent? _____
- $\triangle DEC =$ _____
- Post.: _____



- Congruent? _____
- $\triangle JKM =$ _____
- Post.: _____

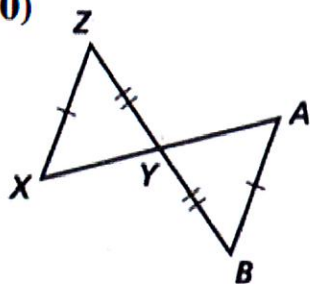


- Congruent? _____
- $\triangle NPR =$ _____
- Post.: _____



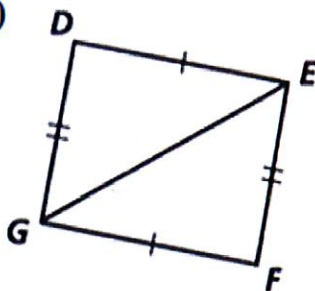
- Congruent? _____
- $\triangle UTS =$ _____
- Post.: _____

10)



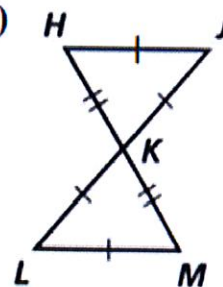
- a.) Congruent? _____
 b.) $\Delta ZXY =$ _____
 c.) Post.: _____

11)



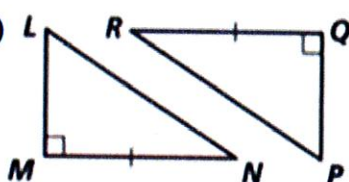
- a.) Congruent? _____
 b.) $\Delta GDE =$ _____
 c.) Post.: _____

12)



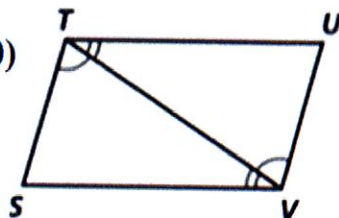
- a.) Congruent? _____
 b.) $\Delta HJK =$ _____
 c.) Post.: _____

19)



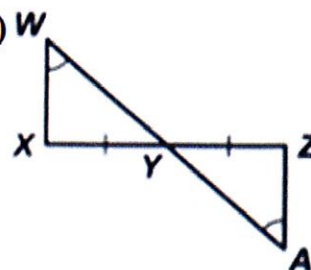
- a.) Congruent? _____
 b.) $\Delta LMN =$ _____
 c.) Post.: _____

20)



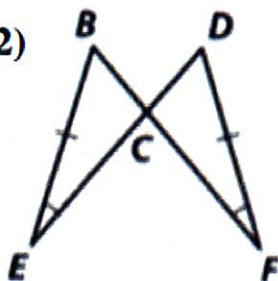
- a.) Congruent? _____
 b.) $\Delta TVS =$ _____
 c.) Post.: _____

21)



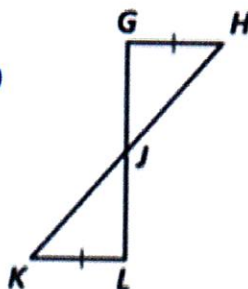
- a.) Congruent? _____
 b.) $\Delta WXY =$ _____
 c.) Post.: _____

22)



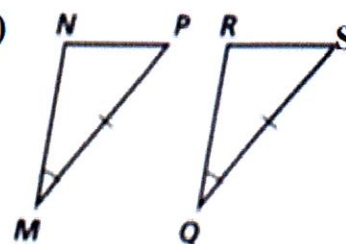
- a.) Congruent? _____
 b.) $\Delta CBE =$ _____
 c.) Post.: _____

23)



- a.) Congruent? _____
 b.) $\Delta JGH =$ _____
 c.) Post.: _____

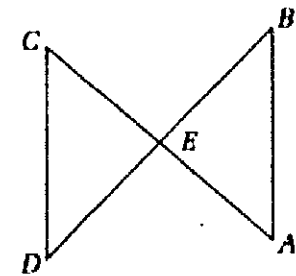
24)



- a.) Congruent? _____
 b.) $\Delta PMN =$ _____
 c.) Post.: _____

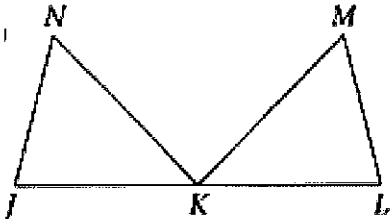
For each set of triangles below, fill in the given information onto the diagram. Then determine the triangle congruence, and say the theorem that shows that they are congruent. (SSS, SAS, ASA, or AAS)

25.) Given $\overline{CD} \cong \overline{AB}$ and $\angle B \cong \angle D$



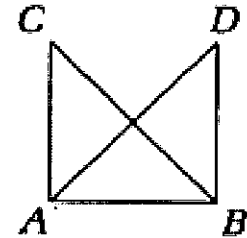
$\triangle CED =$ _____
 Post.: _____

26.) Given $\overline{JN} \cong \overline{LM}$ and $\overline{NK} \cong \overline{MK}$ and $\angle N \cong \angle M$



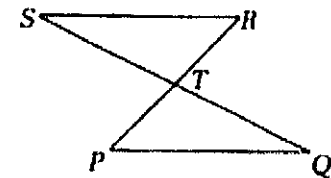
$\triangle KJN =$ _____
 Post.: _____

27.) Given $\overline{AC} \cong \overline{BD}$ and $\overline{AD} \cong \overline{BC}$



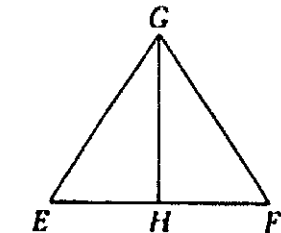
$\triangle ABC =$ _____
 Post.: _____

28.) Given \overline{SQ} and \overline{PR} bisect each other



$\triangle PTQ =$ _____
 Post.: _____

29.) Given \overline{GH} bisects $\angle EGF$ and $\overline{EG} \cong \overline{FG}$



$\triangle HEG =$ _____
 Post.: _____

30.) Come up with a real-world situation in which you might find congruent triangles. Draw a picture to show this and mark which sides or angles are congruent with each other. Label or explain as necessary.